

Gabrielle Carmine, Ph.D.

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POSITIONS

The Earth Commons Academic Postdoctoral Fellowship, The Earth Commons School, Georgetown University. Supervisor: Rebecca Helm
August 2025-August 2027

EDUCATION

Duke University, Nicholas School of the Environment, PhD in Marine Science and Conservation, Marine Geospatial Ecology Lab, May 2025 GPA: 3.95

'Right to fish' for whom?: A geospatial study of actors in high seas fisheries and their governance for ocean conservation solutions.

Advisor: Dr. Patrick N. Halpin

New York University College of Arts and Science-BA in Environmental Studies-Science Concentration, Minor in Environmental Biology, Class of May 2018-Cum Laude, GPA: 3.7, Major GPA: 3.9

- NYU Dean's Honors List for Fall 2016-Spring 2018
- NYU Founder's Day Award 2018

RESEARCH

Grants, Awards, and Fellowships

	Funding Period
Global Fishing Watch: Beneficial Ownership of the Distant Water Fishing Fleet (\$59,011): Project Lead	2024-2025
Greenpeace UK RFMO report travel fund grant (\$5,219)	2024-2025
Duke University Katherine Goodman Stern Fellowship (\$38,600)	2024-2025
Duke Summer Research Fellowship (\$9,678)	2024
Duke University PhD Computational Fellowship (\$9,678)	2023
Center for Environmental and Animal Protection Research Grant (\$14,287)	2022
Best Quantitative Methods Talk at SCCS-NY (\$200 value prize)	2021
The David and Lucille Packard Foundation (\$87,319)	2020-2021
National Geographic Pristine Seas Research Grant (\$4,000)	2019
NYU Moore Scholarship for Marine Ecology and Conservation (\$4,000)	2018

Peer-Reviewed Publications

In print or accepted

Campling, L., Havice, E., Virdin, J., **Carmine, G.**, Andriamahefazafy, M., Barbesgaard, M., Chakravarty, S., Gorez, B., Hetherington, D., Kim, H., Mfodwo, K., Standing, A. (2024). *A geopolitical-economy of distant water fishing access arrangements*. npj Ocean Sustainability 3, 26. [10.1038/s44183-024-00060-y](https://doi.org/10.1038/s44183-024-00060-y)

Jacquet, J., **Carmine, G.**, and Jackson, J. (2023). UN multilateral agreement offers an opportunity to protect high seas biodiversity. Science Advances 9, eadj1435. [10.1126/sciadv.adj1435](https://doi.org/10.1126/sciadv.adj1435).

Park, J., Van Osdel, J., Turner, J., Farthing, C.M., Miller, N.A., Linder, H.L., Ortuño Crespo, G., **Carmine, G.**, and Kroodsma, D.A. (2023). Tracking elusive and shifting identities of the global fishing fleet. Science Advances 9, eabp8200. [10.1126/sciadv.abp8200](https://doi.org/10.1126/sciadv.abp8200).

Pereira, L.M., Ortuño Crespo, G., Amon, D.J., Badhe, R., Bandeira, S., Bengtsson, F., Boettcher, M., **Carmine, G.**, Cheung, W.W.L., Chibwe, B., et al. (2023). The living infinite: Envisioning futures for

transformed human-nature relationships on the high seas. *Marine Policy* 153, 105644.
[10.1016/j.marpol.2023.105644](https://doi.org/10.1016/j.marpol.2023.105644).

Pereira, L., Ortuño Crespo, G., Juri, S., Keys, P., Lübker, H., Merrie, A., Superchi, E., Terry, N., Chibwe, B., Palacios-Abrantes, J., Gasalla, M.A., Salazar, E.R., Yasuhara, M., Obaidullah, F., **Carminé, G.**, Bandeira, S., Amon, D.J., Halouani, G., Johnson, D.E., Shannon, L.J., Jouffray, J.B., Wabnitz, C.C.C., Fulton, B. (2022). The Living Infinite. Vector.

Carminé, G., Mayorga, J., Miller, N.A., Park, J., Halpin, P.N., Crespo, G.O., Österblom, H., Sala, E., and Jacquet, J. (2020). Who is the high seas fishing industry? *One Earth* 3, 730–738.
[10.1016/j.oneear.2020.11.017](https://doi.org/10.1016/j.oneear.2020.11.017).

In review or prep

Carminé, G., Cronin, M.R., Tuohy, C.L., Crespo, G.O., Österblom, H., Jacquet, J., Halpin, P.N. (2025). A comprehensive & expanded evaluation of global fisheries management organizations on the high seas. *Environmental Research Letters*. *In minor revisions*.

Carminé, G., Cleary, J., Fujioka, E., Van Neste, A., Jacquet, J., Halpin, P.N. Protecting for or from?: Insights into high seas protection priorities from case studies of the Costa Rica Thermal Dome and Sargasso Sea. *In prep*

Cronin, M., Finkbeiner, E., Virdin, J., **Carminé, G.**, Dalton, K., Fitzpatrick, J., Hicks, C., Mancha-Cisneros, M., Basurto, X. (2025). Vulnerabilities and opportunities for sustainable development of coastal fishing. *Nature Food*. *In revisions*.

Campbell, L., Barkley, C., **Carminé, G.**, Havice, E. (2025). ‘If you can see it, you can change it’: Ocean Data Science Initiatives and legibility in global oceans. *Environment and Planning E: Nature and Space*. *In review*.

Melvin, E.C., Zurita Posas, A.P., **Carminé, G.**, Havice, E., and Campbell, L. How Maps Make Oceans: Digital Data and Ocean World-Making. *Political Geography*. *In review*

Carminé, G., Dubniczki, H., Park, J., Halpin, P.N. Who is the distant-water fishing fleet? *In prep*.

Dubniczki, H., **Carminé, G.**, Cronin, M.R., Halpin, P.N. Kiribati’s Tuna Purse Seine Fishery, a Case for Comprehensive Vessel Identity Information. *In prep*

Written Reports

Carminé, G., Crespo, G.O., Greenpeace International. 2024. *Un-Tangled: How the Global Ocean Treaty can help repair high seas mismanagement*. Greenpeace UK.
<https://www.greenpeace.org/static/planet4-international-stateless/2024/06/43f396d8-untangled-rfmo-report.pdf>.

Johnson, A. E., Davis, M., Frey, R., **Carminé, G.**, Flemma, J., Whitehouse, S., Watt, L. 2018. *Loss and Waste in the Seafood Supply Chain*. Ocean Collectiv LLC, Prepared for the World Wildlife Fund.

PRESENTATIONS & SCIENCE COMMUNICATION

International Negotiations and Policy

- United Nations Oceans Congress
 - Nicholas Institute of the Environment at Duke University delegation
 - UNOC 2 (June 2025)

- United Nations Biodiversity Beyond National Jurisdiction Agreement Negotiations
 - Marine Conservation Institute delegation: offering informal advice and opinions to delegates across each two-week IGC
 - IGC 4 (March 2022)
 - IGC 5 (August 2022)
 - IGC 5 Resumed (March 2023) Agreement reached
 - Organizational Meeting for the Preparatory Commission for the Implementation of BBNJ (June 2024)
 - Second Preparatory Commission for the Implementation of BBNJ (August 2025)- High Seas Alliance Delegation

Invited Talks and Guest Lectures

- *Critical cartography and high seas fisheries through satellite data*. Fall 2025 Georgetown University – Environmental GIS w/ Taylor Jones.
- *Overfishing on the High Seas: Challenges and opportunities for change*. Fall 2025. Georgetown University- Theories of Change w/ Tim Bartley.
- *Implementing the BBNJ treaty before ratification*. Fall 2025. Duke University Law School-Ocean and Coastal Law and Policy w/ Steve Roady
- *New Directions in Ocean Law: International Ocean Governance*. Panelist. Spring 2025. Yale Law School, New directions in Environmental Law Conference.
- *Regime change on the high seas*. Fall 2024. Duke University Law School-Ocean and Coastal Law and Policy w/ Steve Roady
- *Corporate Actors and corruption in Areas Beyond National Jurisdiction*. 2024. Duke Pre-College Ocean Sustainability.
- *Exploring international law and policy solutions to biodiversity issues facing the high seas*: Panelist. 2024. High Seas Symposium-Ocean Policy Working Group @ Duke University.
- *Negotiations to implementation: Environmental & Social Impact Assessments of future High Seas activities*. 2024. Social Impact Analysis w/Grant Murray. Duke University Marine Lab.
- *'High Stakes on the High Seas': Corporate and intergovernmental actors in high seas fisheries*. 2023. Invited Departmental Seminar, University of Maine- School of Marine Sciences.
- *Ocean conservation for the future*. 2023. Earth Echo Youth Summit Presentation.
- *'High stakes on the high seas': Linking actors to outcomes for high seas biodiversity protection*. 2023. New York University- Environmental Governance w/ David Kanter
- *High seas law and policy in a post-BBNJ era*. 2023. Duke University Law School-Ocean and Coastal Law and Policy w/ Steve Roady
- *Opportunities for fisheries solutions and ocean conservation on the high seas*. 2023. Terra.do
- *'High stakes on the high seas': Fishing and Management*. 2023. Georgetown University.
- *Sticking points in a treaty for Biodiversity Beyond National Jurisdiction*. 2022. Duke University Law School-Ocean & Coastal Law & Policy w/ Steve Roady.
- *What do you gain in a PhD?* 2022. New York University-Career Seminar Series.
- *Mapping the High Seas: Corporate Actors*. 2021. Oceans@Duke webinar series.
- *Talk to a Marine Biologist*. 2020. New York City Public Schools Career Day-PS 29.
- *Managing Nature vs Environmental Stewardship*. 2019. New York University-Environment and Society
- *Indicator Species of the Hudson River*. 2017. The River Project of New York

Conference Presentations

- *Protecting 'for' or 'from': Unique high seas oceanographic features demonstrate contrasting protection priorities for the high seas*. June 2025. United Nations One Ocean Science Congress. Nice, France.
- *'Right to fish' for whom?: A geospatial study of actors in high seas fisheries and their governance for ocean conservation solutions*. 2025. Public Doctoral Defense Seminar. Duke University Nicholas School of the Environment.

- *Who are the high seas and distant water fishing industry?* October 2024, International Marine Conservation Congress (IMCC 7), speaker. Cape Town, South Africa.
- *Linking actors to outcomes: Understanding corporate, intergovernmental, and regional high seas sustainable fisheries solutions.* 2023. Duke University Marine Lab: PhD update series.
- *The new UN high seas treaty: Biodiversity Beyond National Jurisdiction.* 2023. Duke University Marine Lab: MMISS series.
- *Conservation on the High Seas: Disentangling actors and extraction.* 2022. Duke University Marine Lab: PhD update series.
- *Corporate actors in high seas fisheries.* 2021. American Museum of Natural History Center for Biodiversity & Conservation Student Conference on Conservation Science-New York
 - Best Talk: Best use of quantitative methods in conservation research
- *Mapping the High Seas: Corporate actor in high seas fisheries.* 2021. Duke University Marine Lab: PhD update series.
- *The flaws of the Marine Stewardship Council.* 2017. Taronga Conservation Society-Sydney Australia.

Workshops

- Reimagining RFMOs Workshop. 2024. Dubai, UAE. Part of UNOC 3: *Be Nice to the Oceans*
- *Big data ontologies.* 2022. UNC-Chapel Hill.
- *High Seas Nature Future Frameworks.* 2021. Stockholm Resilience Centre. (Three workshops)
- *Do RFMOs have the tools to improve compliance? A workshop on best practices in Compliance in RFMOs.* 2021. Pew Charitable Trusts.

Working Groups

- *Ocean Diplomacy Working Group* member. 2023-current Duke University
- *Oceans @ Duke.* 2020-2022. Duke University
- *High Seas @ Duke.* 2019-2021. Duke University.

Select Media and Popular Press Articles or Interviews

- *Critics push for more transparency at RFMOs that govern high seas fishing.* Edward Carver: Mongabay. 2024
<https://news.mongabay.com/2024/01/critics-push-for-more-transparency-at-rfmos-that-govern-high-seas-fishing/>
- *Episode 435-The High Seas Treaty with Gabrielle Carmine.* Sea Control CIMSEC. 2023
- *Episode 210-A High Seas Treaty at Last! With Gabrielle Carmine.* The Fisheries Podcast. 2023.
- *Episode 194-A Treaty to Protect the Biodiversity of the High Seas with Gabrielle Carmine.* The Fisheries Podcast. 2022.
- *Who owns the boats fishing the high seas?* 2021. Verge Science-Vox Media.
<https://www.youtube.com/watch?v=FLnLr-Z2Qi4> (~115k views)

SERVICE

Peer review

- Science Peer Reviewer 2024-current (x2)
- Science Advances Peer Reviewer 2020-current (x4)
- Npj Ocean sustainability Peer Reviewer 2024-current (x1)
- Marine Policy Peer Reviewer 2023-current (x2)
- Oceana Reports Peer Reviewer 2022 (x1)

Positions

- Mostly Marine Informal Seminar Series (MMISS) Coordinator, Duke University Marine Lab, 2022-2023
- Diversity, Equity, & Inclusion PhD representative, Duke University Marine Lab, 2021-2022
- PhD-CEM coordinator, Duke University Marine Lab, 2020-2021

TEACHING & MENTORSHIP

University Teaching Experience

Duke University, Department of Marine Science and Conservation

- Social Impact Analysis, Grant Murray
 - Teaching Assistant (teaching evaluation 5/5)

New York University, Department of Environmental Studies

- Environment and Society, Robin Nagle
 - TA and recitation leader creating lectures and discussion groups for two groups of 20 students (teaching evaluation 4.9/5)

Student Supervision & Mentorship

Masters Students Thesis Advisor

- Allison Barbaro, Duke University, thesis title: *Area Based Management Tool functionality in space and time in the BBNJ agreement* (2022-2024).
- Hayden Dubniczki, Duke University, thesis title: *Beneficial ownership in Kiribati's tuna purse seine fishery and its interaction with the Phoenix Islands Protected Area* (2022-2024).
- Carden Barkley, Duke University, thesis title: *Evaluating Compliance & Enforcement Mechanisms of Regional Fisheries Management Organizations* (2020-2022).
- Chelsea Tuohy, Duke University, thesis title: *Performance of Regional Fisheries Management Organizations in Spatial Management with an emphasis on Vulnerable Marine Ecosystem Management Measures* (2020-2022).
- Margaret Morrison, Duke University, thesis title: *Evaluating the Impact of Sea-Level Rise on Transportation in Red Hook, New York* (2020-2022).
- Brandon Gertz, Duke University, thesis title: *Deep-sea Connections: Identifying future demand for seabed minerals* (2019-2021).
- Sage Riddick, Lisa Snodgrass, & Megan Swanson, Duke University, thesis title: *Innovation in the Blue Economy: Opportunities in Shipping, Aquaculture, and Offshore Wind for Climate Change Mitigation* (2019-2021).

Undergraduate Students

- Eni Owocye, New York University (2019)

RELEVANT EXPERIENCE

Duke University, Marine Geospatial Ecology Lab – Durham, NC & Beaufort, NC

- Research Assistant — August 2019-August 2025
 - Work on research regarding corporate actors in high seas fisheries using Global Fishing Watch Data
 - Assist with any relevant grants asked by Patrick N. Halpin, PhD

Urban Ocean Lab – New York, NY

- Research Associate — June 2019-August 2019
 - Conduct research regarding Climate Resiliency for Coastal Cities
 - Write op-ed pieces on Climate Resiliency for Coastal Cities
 - Assist with start-up tasks needed for the Think Tank

Ocean Collectiv – New York, NY

- Research Associate — June 2018-August 2019
 - Researching topics and writing papers for clients of the ocean collectiv
 - Attending meetings with Ocean Collectiv members
 - Collaborating with the other research associates
 - Assisting Dr. Ayana Elizabeth Johnson with any tasks needed
- Research Assistant — December 2017-June 2018

- Completing the literature review for the project for the World Wildlife Fund on waste in the seafood supply chain (Including reading 100+ papers, pulling out the notes of interest, tagging each note in the Zotero system, and writing the final paper)
- Attending meetings
- Collaborating with the other research assistants

New York University, Department of Environmental Studies – New York, NY

- Teaching Assistant — January 2019-May 2019
 - Assisting Professor Robin Nagle for the Environment and Society 101 lectures
 - Running formal discussion sections for two groups of twenty students each once a week based on the lectures and readings
 - Grading the assignments and exams for the forty students in my recitations
 - Holding weekly office hours for the students in my recitations
 - Attending weekly meetings with the other teaching assistants and lecturer
- Research Assistant — April 2018-May 2019
 - Assist Dr. Jennifer Jacquet on high seas fishery research
 - Create GIS maps for high seas fishery research
 - Attend bi-weekly meetings
 - Compile and organize data
 - Official employment at NYU as an RA ended in August 2018, but collaboration on this project continued with Dr Jacquet.

National Geographic, Pristine Seas– New York, NY

- Independent Contractor for Research — October 2018-May 2019
 - Compiling, in collaboration with Global Fishing Watch, the corporate actors for high seas vessels
 - Collaborating with Dr. J Jacquet and Pristine Seas researchers on the fishery research
 - Providing deliverables of this database to Global Fishing Watch

Sarah Lawrence College Center for the Urban River at Beczak – Yonkers, NY

- Seasonal Environmental Educator — May 2018-November 2018
 - Lead school trips about the Hudson Estuary, often through seining
 - Running the Saturday River Explorer program for children aged 5-12
 - Collect data for the fish ecology study and perform water quality testing
 - Assist the Director of Education on any tasks
 - Organizing the interns and volunteers with daily tasks

Sprout UP NYC – New York, NY

- Chapter Director — May 2017-May 2018
 - Organize the Downtown Manhattan and Brooklyn Classrooms
 - Hire Instructors for the Sprout Up Classrooms
 - Communicate with the Chapter Team to ensure productivity
 - Budget funds for events, classroom materials, and fingerprinting new instructors
 - Communicate bi-weekly with the Columbia University Sprout Up Chapter
- Lead Instructor — January 2016-May 2018
 - Teach 25 1st and 2nd-grade students Environmental Science and other scientific concepts.
 - Inform and organize the four other instructors on my team of the lesson plan for the week.
- Program Manager — September 2016-January 2017
 - Communicate with the 40 Sprout Up instructors to ensure they have all the materials they need to teach students.
 - Communicate with the teachers at the Sprout Up Elementary Schools

The River Project – New York, NY

- Marine Biology Intern — May 2016-May 2018
 - Assisting with the research for the Fish Ecology study as well as the Water Quality Testing research of the Hudson River
 - Assisting with the oyster restoration project of the Hudson River (Billion Oyster Project)
 - Maintaining the health of the fish and the fish tanks
 - Assist on field trips with grades K-12 and University Students
 - Teach visitors about what we do at the wet lab

Taronga Conservation Society Australia

- Marine Mammals Intern — January 2017-May 2017
 - Design a “sustainable fishing” education center outside the Seal Show exhibit for adults and children to learn how to be sustainable consumers.
 - Assist with husbandry tasks for the seals, sea lions, and penguins
 - Shadow Marine Science researchers from the Taronga Conservation Society

SKILLS

Computer: R Programming language, Python Programming language (Pandas, Geopandas, etc), ArcGIS (ArcGIS Pro and ArcPy), Zotero, HTML programming language (beginner), CSS programming language (beginner), Microsoft Office (Word, PowerPoint, Excel)

Language: Beginner/Intermediate French

Additional Skills: Scuba Padi Open Water Certification

REFERENCES

Patrick N Halpin (phalpin@duke.edu), Jennifer Jacquet (jjacquet@miami.edu), Rebecca Helm (rh1203@georgetown.edu), Steve Roady (sroad@duke.edu), Andre Boustany (aboustany@mbayaq.org), John Virdin (john.virdin@duke.edu), Ayana Elizabeth Johnson (ayanelizabeth@gmail.com).